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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/683,602
Filing Date: January 24, 2002
Appellant(s): MILLER ET AL.

Kevin G. Mierzwa
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/23/04.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-23 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5983161	Lemelson et al	11/9/1999

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

Claim Rejections - 35 USC § 102

I) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

II) Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Lemelson et al (5983161).

Regarding claim 1, Lemelson et al (abstract, fig. 1) disclose a method for operating a pre-crash sensing system, a counter-measure system, for a first vehicle proximate a second vehicle comprising:

generating an object detection signal (Lidar/Radar; col. 18, lines 44-51) over a field of view from a first vehicle (col. 17, lines 19-62);

receiving the object detection signal at the second vehicle when positioned within the field of view (col. 17, lines 19-62);

generating a response signal in response to said object detection signal (col. 17, lines 19-62), said response signal including a key (CDMA, etc; col. 18, lines 30-43);

establishing a communication link between said first vehicle and said second vehicle using said key (CDMA, etc; col. 18, lines 30-43);

communicating a first vehicle data signal (i.e. position; col. 17, lines 19-62) to the second vehicle using said key (CDMA, etc; col. 18, lines 30-43); and

communicating a second vehicle data signal (position, velocity, etc; col. 17, lines 19-62) to the first vehicle using said key (CDMA, etc; col. 18, lines 30-43).

Regarding claim 2, Lemelson et al (abstract, figs. 13-15; col. 27, lines 24-67) disclose the method as recited in claim 1 further comprising entering first vehicle information from the first vehicle data signal into a second vehicle threat registry and wherein the first vehicle information is classified or ranked within the registry.

Regarding claim 3,Lemelson et al (abstract, figs. 13-15; col. 27, lines 24-67) disclose the method as recited in claim 2 wherein classifying comprises classifying the first vehicle information as an imminent threat.

Regarding claim 4, Lemelson et al (abstract, figs. 13-15; col. 27, lines 24-67) disclose the method as recited in claim 3 further comprising allocating a system resource in response to the imminent threat.

Regarding claim 5, Lemelson et al (abstract, figs. 13-15; col. 27, lines 24-67) disclose the method as recited in claim 1 further comprising communicating the second vehicle threat registry to a third vehicle adjacent to the second vehicle.

Regarding claim 6, Lemelson et al (abstract) disclose the method as recited in claim 1 wherein communicating a first vehicle data signal comprises communicating a first position of the first vehicle.

Regarding claim 7, Lemelson et al (abstract) disclose the method as recited in claim 1 wherein communicating a second vehicle data signal comprises communicating a second position of the second vehicle.

Regarding claim 8, Lemelson et al (abstract) disclose the method as recited in claim 1 wherein communicating a first vehicle data signal comprises communicating a first heading information of the first vehicle.

Regarding claim 9, Lemelson et al (abstract) disclose the method as recited in claim 1 wherein communicating a second vehicle data signal comprises communicating second heading information (col. 17, lines 62-67) of the second vehicle.

Regarding claim 10, Lemelson et al disclose the method as recited in claim 1 wherein communicating a first vehicle data signal comprises communicating first trajectory information of the first vehicle to the second vehicle (col. 17, lines 62-67).

Regarding claim 11, Lemelson et al (abstract, figs. 13-15; col. 27, lines 24-67) disclose the method as recited in claim 1 further comprising classifying a threat level as a function of the first vehicle trajectory.

Regarding claim 12, Lemelson et al disclose the method as recited in claim further comprising activating a counter-measure system (col. 20, lines 8-20) in response to the threat level.

Regarding claim 13, Lemelson et al disclose the method as recited in claim 1 wherein said vehicle information comprises heading and speed (see GPS).

Regarding claim 14, Lemelson et al (abstract, fig. 1) disclose a method for operating a pre-crash sensing system, a counter-measure system, for a first vehicle proximate a second vehicle comprising:

establishing a communication link (col. 17, lines 19-62) between said first vehicle and a plurality of vehicles by exchanging a communication key (CDMA, etc; col. 18, lines 30-43);

communicating a vehicle data to the first vehicle from the plurality of vehicles (col. 17, lines 19-62) using the key; and

entering the vehicle data into the first vehicle threat registry (figs. 13-15; col. 25, lines 7-67);

ranking the vehicle data by vehicle within the registry in one of a plurality of classes (figs. 13-15; col. 25, lines 7-67).

Regarding claim 15, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 further comprising ranking some as the vehicle data as an imminent threat registry (figs. 13-15; col. 25, lines 7-67).

Regarding claim 16, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 further comprising allocating a system resource in response to the imminent threat.

Regarding claim 17, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 further comprising estimating a time to impact.

Regarding claim 18, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 further comprising activating an avoidance countermeasure when the time to impact is greater than a time threshold.

Regarding claim 19, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 further comprising activating an impact countermeasure when the time to impact is less than a time threshold.

Regarding claim 20, Lemelson et al (abstract, fig. 1) disclose the method as recited in claim 14 wherein generating a vehicle data signal comprises generating a vehicle type signal, a vehicle weight signal or *a vehicle size signal.*

Regarding claim 21, Lemelson et al (abstract, fig. 1) disclose a system for sensing a potential collision of a first vehicle with a second vehicle, wherein the second vehicle transmits a second vehicle information signal using a key (CDMA, etc; col. 18, lines 30-43) exchanged between the first vehicle and the second vehicle, said first vehicle having a pre-crash sensing system comprising:

a threat registry (FAM 204, col. 25, lines 1-67);

a position sensor (GPS 32, fig. 1; col. 19, lines 44-50) generating a first position signal corresponding to a position of the first vehicle;

a first sensor (transceiver 30, fig. 3; col. 19, lines 30-42) generating sensor signals from the first vehicle;

a receiver (transceiver 30, fig. 3; col.19, lines 30-42) receiving the second vehicle position signal generated from the second vehicle using the key (CDMA, etc; col. 18, lines 30-43);

a countermeasure system (214, 216; fig. 9; col. 24, lines 33-44; col. 25, lines 19-25);

a controller 200 (col. 24, lines 56 to col. 25, lines 1-6) coupled to the threat registry (FAM 204. Note that 204 is part of 38; col. 24, lines 56-58), the position sensor 32, the first sensor 30, the receiver 30, and said counter measure system (214, 216; fig. 9; col. 24, lines 33-44; col. 25, lines 19-25), said controller 200 determining a time to collision (note that time is computed from acceleration, velocity or distance as indicated by the applicant) and a distance to collision (i.e. distance to hazard; col. 25, lines 26-35; col. 27, lines 30-37) in response to the second vehicle information, the first position signal and the second vehicle position (note that distance to hazard embraces the distance computed between position if first vehicle and position of second vehicle), said controller 200 determining a threat level (col. 24, lines 56 to col. 25, lines 1-6; col. 25, lines 28-39; col. 27, lines 25-41) as a function of the time to collision and the distance to collision (see kinematics tracking; col. 34, lines 53-64, etc), activating the countermeasure system in response to the threat level (col. 24, lines 33-44; col. 25, lines 16-25) and storing the vehicle and threat level in the threat registry (FAM; col. 25, lines 7-53).

Regarding claim 22, Lemelson et al (abstract, fig. 1) disclose the system as recited in claim 21 wherein said controller 200 comprises system resources, said controller allocating system resources in response to said threat level.

Regarding claim 23, Lemelson et al (abstract, fig. 1) disclose the system as recited in claim 21 wherein said counter measure system comprises avoidance countermeasures and mitigation countermeasures (214, 216; fig. 9; col. 24, lines 33-44; col. 25, lines 19-25), said controller 200 choosing to activate said avoidance countermeasures or mitigation countermeasures in response to said threat level.

(11) Response to Arguments

Applicant's arguments filed 8-23-04 have been fully considered, but they are not persuasive for the following:

The applicant has based all his arguments on the issue that the prior art, Lemelson et al do not disclose allowing vehicles to communicate using a key. In response, the examiner respectfully disagrees. Page 9, lines 3-10 of applicant's disclosure disclose a communication link used for communicating between two vehicles close to each other when a collision is eminent. The applicants further disclose that a "key" allows the vehicles to communicate and vehicles not holding the key are excluded from communication. The applicant further indicates that when vehicles in a commercial environment communicate with the same frequency, they thus exchange a "key".

As understood in the art of communications and signal processing, the word key is also used in other forms such as keyword, code or codeword, hand-shake, etc. The examiner has interpreted the word, key as known in the art of communications and signal processing and according to applicants' disclosure. Lemelson et al disclose vehicles in communication using a key such as CDMA, which CDMA is a coded or encrypted signal also known as a signal carrying a key intended to be received and processed only by receivers which can interpret the key or coded signal. Other vehicles that do not have the key i.e. the code in the signal cannot receive or interpret the signal. By the same token, in CDMA, the signals are coded or encrypted, thus carrying a key intended to be received and processed only by receivers that can interpret the

key or coded signal. In this way, only the intended receiver can decipher the coded signal or data sent to it.

The examiner has provided a dictionary meaning of the claimed "key" as a code for deciphering encrypted data. In addition the dictionary meaning of a code is a system of symbols used for converting information from one form to another. Still further, according to the dictionary, in CDMA, a transmitter codes or encodes a signal intended for a receiver. The receiver knows the coded signal and uses the coded signal to decode the received signal. Therefore, CDMA has a communication "key" as defined above because it codes and decodes encrypted data, in other words, it ciphers and deciphers encrypted data. Therefore, Lemelson et al disclose vehicles in communication using a key such as in CDMA.

In the applicants' brief page 4, the applicant argues that in Lemelson the vehicles described therein communicate with all the vehicles therearound. This is untrue since in Lemelson, the vehicles that communicate are the vehicles that have CDMA or the other multiple access techniques or "communication key", vehicles that are in close proximity, and vehicles that pose a threat of collision.

Therefore, according to the above disclosure by the applicants, it is believed that Lemelson disclose a communication key because of the following:

i) The applicants' (page 9, lines 3-10 of applicant's disclosure) disclose that when vehicles in a commercial environment communicate with the same frequency, they thus exchange a "key". Therefore, Lemelson et al disclose a key since in Lemelson, vehicles in a commercial environment communicate with the same frequency, and thus exchange a "key".

ii) Page 9, lines 3-10 of applicant's disclosure indicates that a "key" allows the vehicles to communicate and vehicles not holding the key are excluded from communication. Since Lemelson disclose vehicles using multiple access communication methods such CDMA to allow the vehicles to in communication and since by definition receivers not using the same multiple access techniques such as CDMA are excluded from communication with each other, Lemelson disclose communication with a "key".

The applicants' arguments for the rest of the claims are all based on the same argument above discussed above.

It is therefore, believed that the prior art anticipates all the claims.

(12) Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 703-305-6318. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner
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Conferees:

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November 12, 2004

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